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SpaceX (Starlink) and T-Mobile just made a groundbreaking announcement - <https://www.t-mobile.com/aboveandbeyond.html> and

SpaceX will start equipping its “Gen2” satellites (in 2023) with antennas and transceivers to connect with existing T-Mobile customer’s phones using T-Mobile “midband spectrum” (specific frequencies not stated in the announcement) such that, in the absence of terrestrial cellular coverage, the phone will “just connect” with a Starlink satellite and be “on-net” via Starlink.

The tagline of this announcement is “no more dead zones”.

Of course, the “briefly mentioned condition” is that the phone has to be able to “see the sky” to access the Starlink satellites.

(I can personally attest, from experience of a major road trip in May 2022, that T-Mobile *needs this*, especially in the Western third of the US, where T-Mobile coverage is *mediocre* in many areas, even stretches of major US interstate highways.)

Obviously there’s an enormous amount of technical detail to be worked out, not the least of which is that this is a future capability of Starlink satellites that are *not yet built*, not to mention not yet in orbit. The T-Mobile cellular network will have to interoperate with the Starlink network to know how the T-Mobile customer is connecting - to Starlink, or T-Mobile, and coordinate the handoffs.

It’s early days. This new service will start with text messaging, and be capacity constrained in the early days as SpaceX builds out this capability in its satellite constellation.

Previous satellite telephone systems such as [Iridium](#) require special “phones” (actually, miniaturized ground terminals that were [barely] handheld) dedicated to Iridium. Ditto other satellite phone systems such as [Globalstar](#) and [Inmarsat](#).

Make no mistake - this... is... a... big... *deal!!!*

In a decade, we'll take this capability for granted. This is as big a transition as universal mobile phone roaming between cities, back when that capability was fraught with peril (and huge expense) in the early days of cellular.

de Steve N8GNJ

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